



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,164	07/11/2003	Bong-Hyun Kwon	HLE-0002	4358

7590 07/27/2005

CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002

EXAMINER

MACKEY, JAMES P

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,164

Applicant(s)

KWON ET AL.

Examiner

James Mackey

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/11/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

u

Art Unit: 1722

1. Applicant's election without traverse of Group I, claims 1-13, in the reply filed on 12 May 2005 is acknowledged.

2. Claims 14-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 12 May 2005.

3. Applicant should update the Title to reflect the elected invention (e.g., apparatus only).

4. The drawings are objected to because the numbering, lines, structural detailing and shading in Figures 3-7 are of such poor quality that the apparatus structure is not clearly shown.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the

Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing

should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

must be removed from the replacement sheet, and where necessary, the remaining figures must

be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Art Unit: 1722

5. The abstract of the disclosure is objected to because of the inclusion of the legal phraseology "means" on line 7. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 6, "the same heat transmission manner" lacks proper antecedent basis in the claim; and line 7, "while the upper and lower carrier films moving along a gap" is indefinite in that no means for performing the function of moving the films has been recited in the claim.

In claim 2, lines 14-15, "for fixing the gasket" is indefinite as to what the gasket fixing members and gasket fixing frame fix the gasket to.

In claim 3, lines 3-4, "for fixing the upper and lower carrier films" is indefinite as to what the carrier film fixture fixes the carrier films to.

In claim 4, line 4, "for fixing the clamping pin" is indefinite as to what the chain belt fixes the clamping pin to.

Claim 9 is indefinite in that the claim recites a trademark “Teflon”, which is improper for the claims; see *Ex parte Simpson*, 218 USPQ 1020.

In claim 10, line 3, “a space” is indefinite as to exactly where the space is located (it appears that the claim intends to recite the distance the gaskets are spaced apart from each other).

Claim 13 is indefinite in that the claim recites the distance the cylinders are “vertically moved”, but includes a distance of “0” (in which case the cylinders would not be moved).

8. Claims 6 and 13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 6 and 13 do not recite additional structure for the claimed apparatus but merely recite how the claimed apparatus is intended to be operated; however, such relates only to the intended use of the claimed apparatus, which does not patentably distinguish apparatus structure and therefore does not further limit the subject matter of the apparatus claims. Note that intended use has been continuously held not to be germane to determining the patentability of the apparatus, *In re Finsterwalder*, 168 USPQ 530; the manner or method in which a machine is to be utilized is not germane to the issue of patentability of the machine itself, *In re Casey*, 152 USPQ 235.

9. Claim 3 is objected to because of the following informalities: on lines 3-4 of claim 3, “for fixing the upper and lower carrier films” is repeated. Appropriate correction is required.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1722

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 1 and 5-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junker et al. (U.S. Patent 3,422,178; Figures 1-10; col. 4, lines 7-30 and 56, col. 5, lines 1-36, col. 7, lines 49-52, and col. 11, line 62) in view of either Toyooka et al. (U.S. Patent 4,254,074; Figures 1-5) or Japanese Patent Document 10-217264 (Figures 1-2).

Junker et al. teaches a continuous molding apparatus substantially as claimed, comprising upper and lower heating plates 50 (which may be horizontally oriented, see col. 4, line 56 and col. 11, line 62) including heating means comprising circulating fluid channels or electric heating

Art Unit: 1722

elements (col. 5, lines 15-17), two spaced tubular rubber gaskets 41 (col. 7, lines 49-52) disposed at the edges of upper and lower belts 16 to define a continuous molding cavity therebetween, a raw material feed tank 22, 25 for feeding polymeric material into the continuous molding cavity, with means 26 for preventing the feed material from flowing past the gaskets, and means 52 for adjusting the spacing between the heating plates. Junker et al. do not disclose upper and lower carrier films (to the extent that such carrier films define over belts 16 disclosed in Junker et al.). Each of Toyooka et al. and Japan '264 disclose a continuous molding apparatus including upper and lower carrier films (F, F' in Toyooka et al.; 3, 4 in Japan '264) cooperating with gaskets (7 in Toyooka et al.; 15 in Japan '264) to define a continuous molding cavity, a raw material feeder for feeding polymeric material into the continuous molding cavity, and a downstream heating means for heating the polymeric material. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Junker et al. by providing upper and lower carrier films, as disclosed in either Toyooka et al. or Japan '264, in order to provide a desired surfacing to the polymeric material, and to minimize fouling of the belts. It would have been further obvious and well within the level of skill of an ordinary artisan to provide gasket dimensions and gasket spacing within the claimed ranges (claims 8 and 10) in order to mold a product of the desired dimensions. Moreover, it would have been obvious to a skilled artisan to have utilized a carrier film material and thickness as claimed (claims 10-11) in order to avoid undesirable interaction with the molding material and to provide a durable yet lightweight film material, as is conventional in the molding art.

Art Unit: 1722

14. Claims 2-4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Junker et al. in view of either Toyooka et al. or Japan '264, as applied to claims 1 and 5-12 above, and further in view of Yukawa et al. (U.S. Patent 5,658,508).

Junker et al. does not disclose a gasket-protecting film surrounding the gaskets, with gasket fixing members and a gasket fixing frame (claim 2), nor a carrier film fixture (claims 3-4). Yukawa et al. disclose a continuous molding apparatus including upper and lower carrier films 20, 21 cooperating with gaskets 40, 41 to define a continuous molding cavity therebetween, with films 42, 43 surrounding the gaskets and gasket fixing members 44, 45 cooperating with a gasket fixing frame for fixing the gaskets, the fixing members also comprising a carrier film fixture for fixing the carrier films and including pins driven to circulate with the molding material (col. 7, lines 17-39). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Junker et al. by providing a gasket-protecting film with gasket fixing members, and a carrier film fixture, as disclosed in Yukawa et al., in order to minimize fouling of the gaskets and to fix the carrier films together as well as to the gasket-protecting film for joint circulation movement with the molding material. It would have been further obvious to a skilled artisan to provide unwinders and winders for the carrier films as is conventional in the molding art in order to facilitate the re-use of the carrier films, obvious to provide the means for adjusting the spacing of the heating plates as movable cylinders, since such are recognized equivalent means to the screw means 52 disclosed in Junker et al., and obvious to provide a conventional downstream cutting unit for cutting the continuous molded plate into sections (especially considering that Junker et al. discloses "post-treatment" at col. 7, line 71).

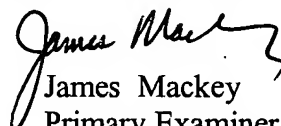
Art Unit: 1722

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James Mackey
Primary Examiner
Art Unit 1722

7/25/05

jpm
July 25, 2005